

MACOM

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Partners from RF to Light

January 27, 2025

Richardson RFPD, Inc.
2001 Butterfield Road, Suite 1800
Downers Grove, Illinois 60515

ATTN: Quality/Purchasing Manager

PCN-01819

Subject: Change in the Wire Bonding Process Technique – Transistor, Bipolar

Dear Valued Customer,

The goal of MACOM Technology Solutions is to continually deliver high quality products and services that meet our customers' needs. In accordance with these goals, this communication is to inform you that MACOM is making changes to the following products. You are receiving this notice because you have purchased one or more of these products in the past two years.

A change in the Wire Bonding Process Technique from Manual Wedge Bonding to Automatic Ball Bonding. Details of this change are on the following page. Please contact your local sales representative if you have any specific questions.

Sincerely,

Paul Wade
Senior Product Marketing Manager
paul.wade@macom.com

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| PCN Number: PCN-01819 | | PCN Date: January 27, 2025 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Title: Change in the Wire Bonding Process Technique – Transistor, Bipolar | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Proposed 1st Ship Date: April 18 th , 2025 | | Estimated Sample Availability: Based on the evaluation process case by case | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Change Type: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Assembly Site | Design | Electrical Specification | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Site | Assembly Process X | Mechanical Specification | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Process | Assembly Materials | Packing/Shipping/Labeling | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PCN Details <ul style="list-style-type: none"> - Description of Change: MACOM is making change in the Wire Bonding Process Technique from “Manual Wedge Bonding” to “Automatic Ball Bonding”. - Reason for Change: To improve the manufacturability of the part and enhance the wire bonding process, we propose replacing the manual method with an automated one. This change aims to increase the quality and consistency of bondability during the wire bonding process. Automated Ball Bonding delivers superior bondability results compared to Manual Wedge Bonding. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Products Affected: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr><td style="text-align: center;">1000004204</td><td style="text-align: center;">MAPHST0049</td><td style="text-align: center;">PH1214-110M</td><td style="text-align: center;">PH2931-20M</td><td style="text-align: center;">PH8982</td><td style="text-align: center;">PH9159</td></tr> <tr><td style="text-align: center;">MAPH-000066-FL0000</td><td style="text-align: center;">MAPHST0063</td><td style="text-align: center;">PH1214-220M</td><td style="text-align: center;">PH3134-20L</td><td style="text-align: center;">PH9008</td><td style="text-align: center;">PH9160</td></tr> <tr><td style="text-align: center;">MAPH-008780-000000</td><td style="text-align: center;">MAPHST0066</td><td style="text-align: center;">PH1214-300M</td><td style="text-align: center;">PH3134-30S</td><td style="text-align: center;">PH9031</td><td style="text-align: center;">PH9161A</td></tr> <tr><td style="text-align: center;">MAPH-010475-000000</td><td style="text-align: center;">MAPHST0083</td><td style="text-align: center;">PH1214-30EL</td><td style="text-align: center;">PH3134-55L</td><td style="text-align: center;">PH9032</td><td style="text-align: center;">PH9182</td></tr> <tr><td style="text-align: center;">MAPH-011002-000000</td><td style="text-align: center;">MAPR-000912-500S00</td><td style="text-align: center;">PH1214-55EL</td><td style="text-align: center;">PH3134-65M</td><td style="text-align: center;">PH9037</td><td style="text-align: center;">PH9182P</td></tr> <tr><td style="text-align: center;">MAPHST0007</td><td style="text-align: center;">MAPR-001011-850S00</td><td style="text-align: center;">PH1214-80M</td><td style="text-align: center;">PH3135-20M</td><td style="text-align: center;">PH9049</td><td style="text-align: center;">PH9186</td></tr> <tr><td style="text-align: center;">MAPHST0008</td><td style="text-align: center;">MAPR-001090-350S00</td><td style="text-align: center;">PH2226-110M</td><td style="text-align: center;">PH3135-25S</td><td style="text-align: center;">PH9051</td><td style="text-align: center;">PH9186-1</td></tr> <tr><td style="text-align: center;">MAPHST0019</td><td style="text-align: center;">MAPRST0912-350</td><td style="text-align: center;">PH2226-50M</td><td style="text-align: center;">PH3135-65M</td><td style="text-align: center;">PH9051G</td><td style="text-align: center;">PH9195</td></tr> <tr><td style="text-align: center;">MAPHST0020</td><td style="text-align: center;">MAPRST1030-1KS</td><td style="text-align: center;">PH2729-110M</td><td style="text-align: center;">PH3135-90S</td><td style="text-align: center;">PH9084</td><td style="text-align: center;">PH9197</td></tr> <tr><td style="text-align: center;">MAPHST0032</td><td style="text-align: center;">MAPRST1214-150UF</td><td style="text-align: center;">PH2729-130M</td><td style="text-align: center;">PH8906</td><td style="text-align: center;">PH9084-2</td><td style="text-align: center;">PH9205</td></tr> <tr><td style="text-align: center;">MAPHST0033</td><td style="text-align: center;">MAPRST1214-6UF</td><td style="text-align: center;">PH2729-25M</td><td style="text-align: center;">PH8909</td><td style="text-align: center;">PH9096</td><td style="text-align: center;">PH9209</td></tr> <tr><td style="text-align: center;">MAPHST0034</td><td style="text-align: center;">PH1090-350L</td><td style="text-align: center;">PH2729-65M</td><td style="text-align: center;">PH8911</td><td style="text-align: center;">PH9105</td><td style="text-align: center;">PH9210</td></tr> <tr><td style="text-align: center;">MAPHST0045</td><td style="text-align: center;">PH1090-550S</td><td style="text-align: center;">PH2731-20M</td><td style="text-align: center;">PH8927</td><td style="text-align: center;">PH9117</td><td></td></tr> <tr><td style="text-align: center;">MAPHST0047</td><td style="text-align: center;">PH1090-700B</td><td style="text-align: center;">PH2731-75L</td><td style="text-align: center;">PH8933</td><td style="text-align: center;">PH9133</td><td></td></tr> <tr><td style="text-align: center;">MAPHST0048</td><td style="text-align: center;">PH1214-100EL</td><td style="text-align: center;">PH2856-160</td><td style="text-align: center;">PH8959</td><td style="text-align: center;">PH9145</td><td></td></tr> </table> | | | | 1000004204 | MAPHST0049 | PH1214-110M | PH2931-20M | PH8982 | PH9159 | MAPH-000066-FL0000 | MAPHST0063 | PH1214-220M | PH3134-20L | PH9008 | PH9160 | MAPH-008780-000000 | MAPHST0066 | PH1214-300M | PH3134-30S | PH9031 | PH9161A | MAPH-010475-000000 | MAPHST0083 | PH1214-30EL | PH3134-55L | PH9032 | PH9182 | MAPH-011002-000000 | MAPR-000912-500S00 | PH1214-55EL | PH3134-65M | PH9037 | PH9182P | MAPHST0007 | MAPR-001011-850S00 | PH1214-80M | PH3135-20M | PH9049 | PH9186 | MAPHST0008 | MAPR-001090-350S00 | PH2226-110M | PH3135-25S | PH9051 | PH9186-1 | MAPHST0019 | MAPRST0912-350 | PH2226-50M | PH3135-65M | PH9051G | PH9195 | MAPHST0020 | MAPRST1030-1KS | PH2729-110M | PH3135-90S | PH9084 | PH9197 | MAPHST0032 | MAPRST1214-150UF | PH2729-130M | PH8906 | PH9084-2 | PH9205 | MAPHST0033 | MAPRST1214-6UF | PH2729-25M | PH8909 | PH9096 | PH9209 | MAPHST0034 | PH1090-350L | PH2729-65M | PH8911 | PH9105 | PH9210 | MAPHST0045 | PH1090-550S | PH2731-20M | PH8927 | PH9117 | | MAPHST0047 | PH1090-700B | PH2731-75L | PH8933 | PH9133 | | MAPHST0048 | PH1214-100EL | PH2856-160 | PH8959 | PH9145 | |
| 1000004204 | MAPHST0049 | PH1214-110M | PH2931-20M | PH8982 | PH9159 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAPH-000066-FL0000 | MAPHST0063 | PH1214-220M | PH3134-20L | PH9008 | PH9160 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAPH-008780-000000 | MAPHST0066 | PH1214-300M | PH3134-30S | PH9031 | PH9161A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAPH-010475-000000 | MAPHST0083 | PH1214-30EL | PH3134-55L | PH9032 | PH9182 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAPH-011002-000000 | MAPR-000912-500S00 | PH1214-55EL | PH3134-65M | PH9037 | PH9182P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAPHST0007 | MAPR-001011-850S00 | PH1214-80M | PH3135-20M | PH9049 | PH9186 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAPHST0008 | MAPR-001090-350S00 | PH2226-110M | PH3135-25S | PH9051 | PH9186-1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAPHST0019 | MAPRST0912-350 | PH2226-50M | PH3135-65M | PH9051G | PH9195 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAPHST0020 | MAPRST1030-1KS | PH2729-110M | PH3135-90S | PH9084 | PH9197 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAPHST0032 | MAPRST1214-150UF | PH2729-130M | PH8906 | PH9084-2 | PH9205 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAPHST0033 | MAPRST1214-6UF | PH2729-25M | PH8909 | PH9096 | PH9209 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAPHST0034 | PH1090-350L | PH2729-65M | PH8911 | PH9105 | PH9210 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAPHST0045 | PH1090-550S | PH2731-20M | PH8927 | PH9117 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAPHST0047 | PH1090-700B | PH2731-75L | PH8933 | PH9133 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAPHST0048 | PH1214-100EL | PH2856-160 | PH8959 | PH9145 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Anticipated impact on Fit, Form, Function: Form, Fit, and Function unaffected. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Changes to product identification resulting from this PCN: None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |